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HEAT EXCHANGERS
First Named Inventor: James Lovette
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**TRANSMITTAL**

Electronic Version v1.1

Stylesheet Version v1.1.0

| Title of Invention | MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS | | | | | | | | | |
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| Application Number: 10/612241 Date: 2003-07-01 First Named Applicant: James Confirmation Number: 3319 Attorney Docket Number: | | | | | | | | | | |
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| <table border="1"><thead><tr><th>Submitted by:</th><th>Elec. Sign.</th><th>Sign. Capacity</th></tr></thead><tbody><tr><td>Thomas B. Haverstock Registered Number: 32571</td><td>/tbh/</td><td>Attorney</td></tr></tbody></table> | | | Submitted by: | Elec. Sign. | Sign. Capacity | Thomas B. Haverstock Registered Number: 32571 | /tbh/ | Attorney | | |
| Submitted by: | Elec. Sign. | Sign. Capacity | | | | | | | | |
| Thomas B. Haverstock Registered Number: 32571 | /tbh/ | Attorney | | | | | | | | |
| <table><tr><td>Documents being submitted</td><td>Files</td></tr><tr><td>us-ids</td><td>COOL01400-usidst.xml</td></tr><tr><td></td><td>us-ids.dtd</td></tr><tr><td></td><td>us-ids.xsl</td></tr></table> | | | Documents being submitted | Files | us-ids | COOL01400-usidst.xml | | us-ids.dtd | | us-ids.xsl |
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| Comments | | | | | | | | | | |

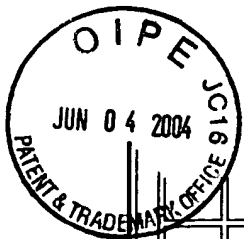


ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

| Title of Invention | MULTI-LEVEL MICROCHANNEL HEAT EXCHANGERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Application Number: 10/612241</p> <p>Confirmation Number: 3319</p> <p>First Named Applicant: James Lovette</p> <p>Attorney Docket Number:</p> <p>Search string: (4467861 or 4903761 or 5016090 or 5269372 or 5275237 or 5310440 or 5346000 or 5388635 or 5945217 or 6019165 or 6034872 or 6039114 or 6253832 or 6257320 or 6330907 or 6336497 or 6366462 or 6367544 or 6431260 or 6466442 or 6519151 or 6533029 or 6536516 or 6601643 or 6609560 or 6651735 or 20030213580).pn.</p> <p>US Patent Documents</p> <p>Note: Applicant is not required to submit a paper copy of cited US Patent Documents</p> <table border="1"><thead><tr><th>init</th><th>Cite.No.</th><th>Patent No.</th><th>Date</th><th>Patentee</th><th>Kind</th><th>Class</th><th>Subclass</th></tr></thead><tbody><tr><td></td><td>1</td><td>4467861</td><td>1984-08-28</td><td>Kiseev et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>2</td><td>4903761</td><td>1990-02-27</td><td>Cima</td><td></td><td></td><td></td></tr><tr><td></td><td>3</td><td>5016090</td><td>1991-05-14</td><td>Galyon et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>4</td><td>5269372</td><td>1993-12-14</td><td>Chu et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>5</td><td>5275237</td><td>1994-01-04</td><td>Rolfson et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>6</td><td>5310440</td><td>1994-05-10</td><td>Zingher</td><td></td><td></td><td></td></tr><tr><td></td><td>7</td><td>5346000</td><td>1994-09-13</td><td>Schlitt</td><td></td><td></td><td></td></tr><tr><td></td><td>8</td><td>5388635</td><td>1995-02-14</td><td>Gruber et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>9</td><td>5945217</td><td>1999-08-31</td><td>Hanrahan</td><td></td><td></td><td></td></tr><tr><td></td><td>10</td><td>6019165</td><td>2000-02-01</td><td>Batchelder</td><td></td><td></td><td></td></tr><tr><td></td><td>11</td><td>6034872</td><td>2000-03-07</td><td>Chrysler et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>12</td><td>6039114</td><td>2000-03-21</td><td>Becker et al.</td><td></td><td></td><td></td></tr><tr><td></td><td>13</td><td>6253832</td><td>2001-07-03</td><td>Hallefalt</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>14</td><td>6257320</td><td>2001-07-10</td><td>Wargo</td><td>B1</td><td></td><td></td></tr><tr><td></td><td>15</td><td>6330907</td><td>2001-12-18</td><td>Ogushi et al.</td><td>B1</td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> | | | | | | | | init | Cite.No. | Patent No. | Date | Patentee | Kind | Class | Subclass | | 1 | 4467861 | 1984-08-28 | Kiseev et al. | | | | | 2 | 4903761 | 1990-02-27 | Cima | | | | | 3 | 5016090 | 1991-05-14 | Galyon et al. | | | | | 4 | 5269372 | 1993-12-14 | Chu et al. | | | | | 5 | 5275237 | 1994-01-04 | Rolfson et al. | | | | | 6 | 5310440 | 1994-05-10 | Zingher | | | | | 7 | 5346000 | 1994-09-13 | Schlitt | | | | | 8 | 5388635 | 1995-02-14 | Gruber et al. | | | | | 9 | 5945217 | 1999-08-31 | Hanrahan | | | | | 10 | 6019165 | 2000-02-01 | Batchelder | | | | | 11 | 6034872 | 2000-03-07 | Chrysler et al. | | | | | 12 | 6039114 | 2000-03-21 | Becker et al. | | | | | 13 | 6253832 | 2001-07-03 | Hallefalt | B1 | | | | 14 | 6257320 | 2001-07-10 | Wargo | B1 | | | | 15 | 6330907 | 2001-12-18 | Ogushi et al. | B1 | | | | | | | | | | |
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| | 2 | 4903761 | 1990-02-27 | Cima | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | 5016090 | 1991-05-14 | Galyon et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | 5269372 | 1993-12-14 | Chu et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | 5275237 | 1994-01-04 | Rolfson et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | 7 | 5346000 | 1994-09-13 | Schlitt | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | 5388635 | 1995-02-14 | Gruber et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | 5945217 | 1999-08-31 | Hanrahan | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | 6019165 | 2000-02-01 | Batchelder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 | 6034872 | 2000-03-07 | Chrysler et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12 | 6039114 | 2000-03-21 | Becker et al. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 | 6253832 | 2001-07-03 | Hallefalt | B1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14 | 6257320 | 2001-07-10 | Wargo | B1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 15 | 6330907 | 2001-12-18 | Ogushi et al. | B1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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|--|----|---------|------------|-----------------|----|
| | 16 | 6336497 | 2002-01-08 | Lin | B1 |
| | 17 | 6366462 | 2002-04-02 | Chu et al. | B1 |
| | 18 | 6367544 | 2002-04-09 | Calaman | B1 |
| | 19 | 6431260 | 2002-08-13 | Agonafer et al. | B1 |
| | 20 | 6466442 | 2002-10-15 | Lin | B2 |
| | 21 | 6519151 | 2003-02-11 | Chu et al. | B2 |
| | 22 | 6533029 | 2003-03-18 | Phillips | B1 |
| | 23 | 6536516 | 2003-03-25 | Davies et al. | B2 |
| | 24 | 6601643 | 2003-08-05 | Cho et al. | B2 |
| | 25 | 6609560 | 2003-08-26 | Cho et al. | B2 |
| | 26 | 6651735 | 2003-11-25 | Cho et al. | B2 |

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| | 1 | 20030213580 | 2003-11-20 | Philpott et al. | A1 | | |

Signature

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